

International Preliminary Report
Regarding Patentability
(supplemental sheet)

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Re Section IV.

The different inventions/groups of inventions are:

1-3, 5-7, 9-13, 15-17 (if not dependent from Claims 4, 8, 14)
drive and its housing
4, 8 (if exclusively dependent from Claim 1)
type of motor and sensor
14 (if exclusively dependent from Claim 1)
modulation of information

For the following reasons, these inventions/groups are not connected in such manner, that they implement a single, generally inventive idea (Rule 13.1 PCT):

The three groups of claims are neither interconnected by a common inventive idea (Rule 13 (1) PCT), nor do they have special, common technical features, which define a contribution of each claimed invention as a whole over the related art (Rule 13 (2) PCT). The reasons are as follows:

The subject matter of independent Claim 1 is not novel in the sense of Rule 33 (2) PCT and therefore does not contain any special technical features.

Document DE 199 13 833 (D1) discloses a compact drive (column 4, line 43), including at least an electric motor, a transmission (column 3, lines 35-38), and a frequency converter (column 4, lines 22-23, 37-38),

wherein the output shaft of the transmission and the rotor shaft are positioned in parallel to each other, and the shaft-center distance of at least one transmission stage is determined (Fig. 1, 2; "reduction gear" 7 is a transmission stage).

The subject matter of Claim 1 is not novel (Rule 33 (2) PCT) and consequently does not include any special technical features.

It should be pointed out that the proof of no special technical features in Claim 1 may also be deduced from document EP 1 049 234 (D2), e.g. Figures 3, 5, 7, 9.

The remaining claims dependent from the unnovel Claim 1 contain three inventions, which neither possess common, special technical features, nor are interconnected by a common inventive idea:

Invention 1:

Special technical feature (Claim 3): The transmission stage is designed as a variable transmission.

Invention 2:

Special technical feature (Claim 4): The electric motor is a synchronous motor and/or a permanent-magnet motor.

Invention 3:

Special technical feature (Claim 14): The compact drive includes at least an electronic circuit for modulating or demodulating information upon [onto] the load leads.

Therefore, the three inventions do not contain any common, special technical features (Rule 13 (2) PCT).

If one examines the claims in view of common features relating to a technical effect, one determines that the following technical effects occur for the individual inventions:

Invention 1: continuously variable transmission.

Invention 2: high-output motor.

Invention 3: data transmission without additional connecting lines.

The more compact design of a drive can be seen as a common technical effect of inventions 1-3. However, this effect is known to one skilled in the art. Therefore, inventions 1-3 are not interconnected by a single inventive idea (Rule 13.1 PCT).

Re Section V.

1.

Reference is made to the following documents in the present action:

D1 = DE 199 13 833

D2 = EP 1 049 234

D3 = EP 1 231 701

D4 = EP 0 993 098

D5 = US 3 149 499

2.

The present invention does not satisfy the requirements of Article 33 (1) PCT, because the subject matter of Claim 1 is not novel in the spirit of Article 33 (2) PCT. (See Section IV)

3.

Independent Claims 2, 3, 5-7, 9-13, 15-17 can also not be regarded as novel or inventive (Rule 33 (2), (3) PCT).

Claim 2: D1, column 3, line 38, Fig. 1.

Claim 3: D1 and D4, Fig. 1.

Claim 5: D1, no. 17, Fig. 3, 4.

Claim 6: D1 and D3, Fig. 1, no. 10, 10'

Claim 7: D1, Fig. 1, 2, 4; column 3, line 61 through column 4, line 30

Claim 9: D1 and D3, Fig. 1.

Claim 10: D1 and D3, Fig. 1, no. 10.

Claim 11: D1 and D5, Fig. 3, no. 46; column 3, lines 34-35.

Claim 12: D1, Fig. 1, no. 9, 10, 11.

Claim 13: Using D1 as a starting point, it is obvious for one skilled in the art to modify the connection to provide connection terminals on the housing.

Claim 15: D1 and D3, Fig. 8. The cooling fins allow water to drain off.

Claim 16: It is trivial that the transfer of heat through cooling fins is greater than that through smooth surfaces.

Claim 17: D1 and D3. In D3, Fig. 8, there is obviously a flow of conducted heat from drive circuit (420) to the ambient air, via both the cooling fins on the right side of it and a planar region of the housing (530). More heat is dissipated by the cooling fins (see above).